



[6450-01-P]

DEPARTMENT OF ENERGY

Office of Energy Efficiency and Renewable Energy

[Docket No. EERE-2013-BT-DET-0053]

Energy Efficiency Program for Industrial Equipment: Petition of CSA Group for Classification as a Nationally Recognized Certification Program for Small Electric Motors

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notice of petition and request for public comments.

SUMMARY: This notice announces receipt of a petition from CSA Group (CSA) seeking classification as a nationally recognized certification program under 10 CFR 431.447 and 431.448. In its petition, which appears at the end of this notice, CSA provides documentation to help substantiate its position that its certification program for small electric motors satisfies the evaluation criteria for classification as a nationally recognized certification program that are specified in 10 CFR 431.447(b). This notice summarizes the substantive aspects of these documents and requests public comments on the merits of CSA's petition.

DATES: DOE will accept comments, data, and information with respect to the CSA Petition until **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments, identified by docket number “EERE-2013-BT-DET-0053,” by any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.
- E-mail: CSACertPrgSmElecMotors2013DET0053@ee.doe.gov. Include the docket number EERE-2013-BT-DET-0053 in the subject line of the message.
- Mail: Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, Mailstop EE-2J/1000 Independence Avenue, SW, Washington, DC 20585-0121. Telephone: (202) 586-2945. Please submit one signed original paper copy.
- Hand Delivery/Courier: Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, 950 L’Enfant Plaza SW, Suite 600, Washington, DC 20024. Please submit one signed original paper copy.

Docket: For access to the docket to review the background documents relevant to this matter, you may visit the U.S. Department of Energy, 950 L’Enfant Plaza SW, Washington, DC, 20024; (202) 586-2945, between 9:00 a.m. and 4:00 p.m., Monday through Friday, except Federal holidays. Please call Ms. Brenda Edwards at the above telephone number for additional information.

FOR FURTHER INFORMATION CONTACT: Mr. Lucas Adin, U.S. Department of Energy, Building Technologies Program, Mail Stop EE-2J, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585-0121. Telephone: (202) 287-1317. E-mail: Lucas.Adin@ee.doe.gov.

Mr. Michael Kido, U.S. Department of Energy, Office of the General Counsel, Mail Stop GC-71, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585-0103. Telephone: (202) 586-8145. E-mail: Michael.Kido@hq.doe.gov.

SUPPLEMENTARY INFORMATION:

I. Background and Authority

Part C of Title III of the Energy Policy and Conservation Act contains energy conservation requirements for, among other things, electric motors and small electric motors, including test procedures, energy efficiency standards, and compliance certification requirements. 42 U.S.C. 6311-6316.¹ Section 345(c) of EPCA directs the Secretary of Energy to require manufacturers of electric motors ``to certify through an independent testing or certification program nationally recognized in the United States, that [each electric motor subject to EPCA efficiency standards] meets the applicable standard." 42 U.S.C. 6316(c).

¹ For editorial reasons, upon codification in the U.S. Code, Part C was re-designated Part A-1.

Regulations to implement this statutory directive are codified in Title 10 of the Code of Federal Regulations Part 431 (10 CFR Part 431) at § 431.36, Compliance Certification, §431.20, Department of Energy recognition of nationally recognized certification programs, and § 431.21, Procedures for recognition and withdrawal of recognition of accreditation bodies and certification programs. Sections 431.20 and 431.21 set forth the criteria and procedures for national recognition of an energy efficiency certification program for electric motors by the U.S. Department of Energy (“DOE” or in context, “the Department”). With the support of a variety of interests, including industry and energy efficiency advocacy groups, DOE published a final rule on May 4, 2012, that established requirements for small electric motors that are essentially identical to the criteria and procedures for national recognition of an energy efficiency certification program for electric motors. See 77 FR 26608, 26629 (discussing DOE’s reasoning for codifying parallel provisions for small electric motors at 10 CFR 431.447 and 431.448).

For a certification program to be classified by DOE as being nationally recognized in the United States for the testing and certification of small electric motors, the organization operating the program must submit a petition to the Department requesting such classification, in accordance with §§ 431.447 and 431.448. In sum, for the Department to grant such a petition, the certification program must: (1) have satisfactory standards and procedures for conducting and administering a certification system, and for granting a certificate of conformity; (2) be independent of small electric motor manufacturers, importers, distributors, private labelers or vendors; (3) be qualified

to operate a certification system in a highly competent manner; and (4) be expert in the test procedures and methodologies in IEEE Standard 112-2004 Test Methods A and B, IEEE Standard 114-2010, CSA Standard C390-10, and CSA C747 or similar procedures and methodologies for determining the energy efficiency of small electric motors, and have satisfactory criteria and procedures for selecting and sampling small electric motors for energy efficiency testing. 10 CFR 431.447(b).

Each petition requesting classification as a nationally recognized certification program must contain a narrative statement explaining why the organization meets the above criteria, include documentation that supports the narrative statement, and be signed by an authorized representative. 10 CFR 431.447(c).

II. Discussion

Pursuant to §§ 431.447 and 431.448, on November 1, 2013, CSA submitted to the Department a “Petition for Recognition as a *Nationally Recognized Certification Program* for small electric motors” (“Petition” or “CSA Petition”). The Petition was accompanied by a cover letter from CSA to the Department, and the petition itself includes five separate sections -- (1) Scope and Application, (2) Overview of CSA Group, (3) Certification and Testing – Quality Management System, (4) CSA Group’s Motor Energy Efficiency Verification Program – Product Directory, and (5) Examples of Other CSA Group Accreditations. The petition included supporting documentation on these subjects. Copies of the above documents have been placed in the docket.

Consistent with its regulations, the Department is soliciting comments, data and information on whether it should grant the CSA Petition. 10 CFR 431.448(b). Any person submitting written comments to DOE with respect to the CSA Petition must also, at the same time, send a copy of such comments to CSA. As provided under section 431.448(c), CSA may submit to the Department a written response to any such comments. After receiving any such comments and responses, the Department will issue an interim and then a final determination on the CSA Petition, in accordance with § 431.448(d) and (e) of 10 CFR part 431.

In particular, the Department is interested in obtaining comments, data, and information respecting the following evaluation criteria:

(1) Whether CSA has satisfactory standards and procedures for conducting and administering a certification system, including periodic follow up activities to assure that basic models of small electric motors continue to conform to the efficiency levels for which they were certified, and for granting a certificate of conformity. DOE is also interested in obtaining comments as to how rigorously CSA operates its certification system under the guidelines contained in ISO/IEC Guide 65, General requirements for bodies operating product certification systems.

(2) Whether CSA is independent of small electric motor manufacturers, importers, distributors, private labelers or vendors. To meet this requirement it cannot be affiliated

with, have financial ties with, be controlled by, or be under common control with any such entity.

(3) Whether CSA is expert in the content and application of the test procedures and methodologies in IEEE Std 112-2004 Test Methods A and B, IEEE Std 114-2010, CSA C390-10, and CSA C747 (incorporated by reference, see 10 CFR 431.443) or similar procedures and methodologies for determining the energy efficiency of small electric motors. DOE is also interested in receiving comments on whether CSA's criteria and procedures for the selection and sampling of electric motors tested for energy efficiency are technically appropriate and statistically rigorous.

Issued in Washington, DC on December 23, 2013.

Kathleen B. Hogan
Deputy Assistant Secretary for Energy Efficiency
Energy Efficiency and Renewable Energy

November 1, 2013

Mr. Lucas Adin

Assistant Secretary for Energy Efficiency and Renewable Energy

U.S. Department of Energy

Forrestal Building

1000 Independence Ave SW

Washington, DC 20585-0121.

Subject: Petition for Recognition as a *Nationally Recognized Certification Program* for small electric motors.

Dear Mr. Adin,

Please accept this letter and accompanying supporting material as CSA Group's petition for recognition of our small motor energy efficiency verification program to be classified as a nationally recognized certification program in the United States, in accordance with 10 CFR Part 431.

Enclosed please find three (3) binders, each containing the required information for the Department of Energy (DOE) recognition of nationally recognized certification programs described in Sections 431.447 and 431.448 of 10 CFR Part 431, dated May 4, 2012.

Among the topics, this documentation package includes:

1. A guide describing our small motor energy efficiency verification service program;

2. A general description of our quality management system covering the essential elements of our standards and procedures for operating a certification system;
3. CSA Group By-Laws and assurance of our independence and influence from manufacturers, suppliers and vendors; and
4. Samples of CSA Group accreditations.

CSA Group has been offering a motor Energy Efficiency Verification service program since 1992 in support of Canadian Federal and Provincial Regulations and since 2002 for evaluation of electric motor efficiencies to US DOE requirements. Key elements of our program for confirming continued compliance of a motor with a standard are (1) a detailed construction report for a motor on its initial submission; (2) follow-up inspections to confirm consistency of construction and markings; (3) annual re-testing; and (4) challenge testing service. CSA Group is confident that our organization and staff have proven experience in operation a certification program in this area, and our certification system procedures fully meet the evaluation criteria for us to be classified by DOE as a nationally recognized certification program. We, therefore, believe that this petition is in order and that it can be processed without delay. Please let me know if you require any further information.

Thank you very much for your consideration,

Rick Morrison P.Eng.,

Technical Manager, Energy Efficiency Verification, CSA Group.

CSA Group, 178 Rexdale Boulevard

Toronto, ON, M9W 1R3, Canada

T: 416 747 4090

Petition for Recognition

Energy Efficiency Evaluation of Electric Motors to United States Department of Energy Requirements Documented in 10 CFR 431 – Subpart B and Subpart X

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Section 4. CSA Group’s Motor Energy Efficiency Verification Program

- Product Directory

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Section 1 – Scope and Application

Since 2002, CSA Group’s electric motor (1 hp – 500 hp) energy efficiency verification program has been DOE listed as a nationally recognized certification program. CSA Group is seeking scope expansion to be classified as a nationally recognized certification program in the United

States under EPCA with respect to verifying Small Electric Motor (1/4 hp – 3 hp) efficiencies when applying the following test procedures and standards:

- (a) Test method B of ANSI/IEEE 112-2004, Test Procedure for Polyphase Induction Motors and Generators;
- (b) Test method of CSA C390-10, Test method, marking requirements and energy efficiency levels for three-phase induction motors;
- (c) Test method of CSA C747-09. Energy efficiency test methods for small motors.
- (d) Test method of IEEE 114-2001, Test procedure for single-phase induction motors.
- (e) NEMA MG1- 2009 , Motors and Generators

Facilities

CSA Group Certification Facilities

CSA Group has facilities in Canada, in the United States, in Europe and in the Far East. For your reference they are as follows:

Area	Address
Montreal	865 Ellingham Street, Pointe Claire, PQ H9R 5E8
Toronto	178 Rexdale Boulevard, Toronto, Ontario M9W 1R3
Edmonton	1707-94 Street NW, Edmonton, AB T6N 1E6
Vancouver	13799 Commerce Parkway, Richmond, BC V6V 2N9
Cleveland	8501 East Pleasant Valley Road, Cleveland, OH 44131-5575
Irvine	2805 Barranca Parkway, Irvine, CA 92606-5114
Frankfurt	Weismüllerstrasse 45, 60314 Frankfurt am Main, Germany
Shanghai	1st Floor, Building 4, Qilai Industrial City, 889 Yishan Road, Shanghai, 200233
China	

Designated Testing Facilities

As part of CSA Group's motor energy efficiency verification program we are using our Toronto test facility and the *Laboratoire des Technologies de l'Energie of Hydro-Quebec, (LTE)* for such purposes as product qualification testing, re-testing, and challenge testing. The facilities of Toronto are used for testing the full range of motors from 0.25 up to 50 horsepower and the LTE facilities are used for motors ranging 50 to 500 horsepower.

Summary of Section 1 Supporting Documentation

Section 1 of the CSA petition contained no supporting documents.

Section 2 – Overview of CSA Group

Name and Address

CSA Group

178 Rexdale Blvd,

Toronto, Ontario, M9W 1R3

(Headquarters)

Background

CSA Group is an independent organization providing services in the fields of Standards Development and Conformity Assessment. The Standards Division of CSA Group is responsible for the administration of the development of voluntary consensus based standards, while the Certification and Testing Division provides conformity assessment programs including laboratory testing certification and inspection. The Consumer Product Evaluation Division provides services for consumer product evaluation.

Canadian Standards Association, operating as CSA Group, was established in 1919 as an independent, not-for-profit corporation under Part II of the *Canada Corporations Act*. CSA Group is a membership association whose purpose is to make standards work for people and business. CSA Group is the largest standards developer in Canada, certifies and tests various products to standards which may be destined for retail markets in Canada, the US and internationally, and tests consumer products to retailer protocols. CSA Group has staff which includes approximately 1100 employees in 14 offices across North America, as well as over 7,000 members who volunteer their time and knowledge to develop standards and programs that benefit business, industry and society. CSA Group has sales of approximately \$250M, is involved in 52 technologies, and has over 2,000 standards and over 88,000 customers.

Ownership

CSA Group is an independent, not-for-profit organization governed by a Board of Directors selected by the membership. The Association has no affiliation with manufacturers or suppliers of the products submitted for certification. Attachment 1 provides information regarding: (a) CSA's Letters of Patent; (b) Statement of Independence; and (c) By-Laws.

Board of Directors and Principal Officers

See CSA Group's Annual Report for the individuals serving on our Board of Directors and Executive Management Team.

See Attachment 2.

Major components of the Association are shown on the “Corporate Organization Chart.” See Attachment 3.

Summary of Section 2 Supporting Documentation

Section 2, Attachment 1, contains copies of: the Canadian Engineering Standards Association Charter, dated January 21, 1919; the Canadian Standards Association Supplementary Letters Patent, dated April 26, 1944;

Section 2, Attachment 2, a sworn Statement of Independence, dated October 16, 2013;

Section 2, Attachment 3, is a copy of the CSA Group 2012 Annual Report.

Section 2, Attachment 4, is a copy of the CSA Group senior management organization chart.

Section 3 - CSA Group Certification Services Quality Management System

CSA Group’s Certification Division maintains the quality assurance system for the Association’s worldwide operations. The objective of this system is to ensure,

- (a) technical excellence;
- (b) consistency of interpretation, application of standards, programs and procedures;
- (c) integrity of our Mark; and
- (d) continuous improvement.

The Quality Assurance system for the Division is based on national and international accreditation requirements and specific contractual customer requirements. The accreditation requirements are found in the applicable editions of the following standards.

ISO/IEC Guide 65 / General Requirements for Bodies Operating Product Certification Systems

SCC/CAN-P3

SCC/CAN-P- 1500 Additional Requirements for Accreditation of Certification Bodies

ISO/IEC 17025/ General Requirements for the Competence of Calibration and Testing Laboratories

SCC/CAN P-4

ANSI Z34.1 American National Standard for Certification—third party certification program

CSA Group has implemented the requirements specified in ISO/IEC Guide 65, General requirements for bodies operating product certification systems. CSA Group facilities are accredited by accreditation bodies such as Standard Council of Canada and ANSI to these requirements.

Divisional Quality Documents (DQDs) are operating procedures and guidelines used by staff in support of the quality assurance system.

Summary of CSA Group Section 3 Supporting Documentation

Section 3 of the CSA petition contained no supporting documents.

Section 4 - CSA Group's Motor Energy Efficiency Verification Program

Overview of the CSA Verification Program:

Application

Evaluation and Testing

Certification

Service Agreement

Accompanying Services

Follow-up Inspections

Product Re-testing

Challenge Testing

Corrective Action

Sampling Process

Expertise in Motor Test Procedures

As Canada's premier Standards Development Organization, CSA Group publishes consensus standards to improve products and enhance trade - all the time ensuring the needs of our various Stakeholders are met. By establishing consensus among the different interest groups, with a balanced committee process, CSA Group creates effective standards that are frequently referenced in Canadian Energy Efficiency Regulations. In addition, US DOE electric motor and small electric motor Regulations reference CSA Standards such as C390-10 and C747-09.

CSA Standard C390-10, Test method, marking requirements and, energy efficiency levels for three-phase induction methods, is widely used in Canada as an integral part of Federal and Provincial Regulations. Electrical utility programs also make use of this standard to promote the use of higher levels of energy performance on a voluntary basis.

Our intimate knowledge of the standard coupled with CSA Group's recognition as an accredited Certification Organization in Canada for motor efficiency and electrical safety supports the needs of manufacturers, consumers and regulators. We provide the necessary independent assurance

that motors covered by government regulations meet and continue to comply with the established energy efficiency requirements.

Verification Program

The acceptance of motors under the CSA Group's energy efficiency verification program depends upon the satisfactory evaluation and testing to determine that the requirements of the applicable standard (CSA Standard C390–10, C747-09) are met on a continuing basis. The following is a description of the major elements of our program used for qualifying manufacturers' motors or group of motors.

Application

The customer makes an application requesting energy efficiency verification for his motor and submits all required documentation such as a list of all motors being submitted by model designation, type, and applicable performance ratings. The application is given a specific file to track and record all activities to the project. A qualified person (*e.g.*, professional engineer) is then assigned responsibility for handling the project.

Evaluation and Testing

CSA Group with the manufacturer's assistance prepares a motor control list, identifying the critical features and the controls for these features for maintaining consistent performance with

respect to energy efficiency. Representative motor samples are tested by an acceptable facility such as CSA Group or LTE to verify manufacturers rated efficiency values.

Attachment 1 provides a description of the procedures used for the initial motor qualification testing and the follow-up re-testing service to ensure continued compliance. A findings letter is then issued giving the results of our evaluation and actions needed, if applicable, to meet the standard. Modified samples may be required for further examination and testing.

Certification

After the resolution of all the action items and all the conditions of the standard are met, the applicant is formally authorized to apply the CSA Group Energy Efficiency Verification Mark. A report is prepared describing the product and giving the related test results. A directory listing all products verified for energy efficiency is published and available to the general public. See Attachment 2.

Service Agreement

The applicant authorized to represent its motor as verified with our Energy Efficiency Marking must enter a signed agreement with CSA Group. This agreement addresses the conditions for maintaining certification such as access to facilities and records, follow-up inspection, product re-testing and challenge testing. Manufacturers are also required to notify CSA Group when changes are made to the motor, which may affect their performance rating. These terms and conditions are designed to protect the integrity of our Energy Efficiency Marking.

Accompanying Services

After the motor has been initially evaluated and found to comply with the standard, our program includes additional services to ensure that motors bearing the CSA Group verification marking continue to meet the applicable requirements. These services are:

- (a) Follow-up inspections;
- (b) Product re-testing; and
- (c) Challenge testing.

Follow-up Inspections

Follow-up inspections are conducted at the point of manufacturing each year to ensure that,

- (a) our mark is only applied to motors that have been verified for energy efficiency;
- (b) the manufacturers' product control measures are continuing to produce marked products that are in compliance with our report and the standard;
- (c) samples required for re-testing are selected and sealed by CSA Group staff during these visits.

Product Re-testing

Although a report is generated for motors detailing the critical construction features needed for maintaining consistent performance with respect to energy efficiency, our program is supplemented with unannounced motor re-testing to the specified requirement. This facilitates continued compliance with the standard and maintains the integrity of our mark.

Challenge Testing

Another service—challenge testing—is offered to any manufacturer or other party wishing to confirm the motor efficiency rating of a verified motor. This feature assists in ensuring the integrity of our verification program and can lead to the motor efficiency de-rating or a delisting of a series of motors represented by the sample motor.

Corrective Action

When a motor fails to comply with the standards, we take the following steps:

- (a) remove the verification mark from the affected motor or motors;
- (b) delist the motor(s);
- (c) notify the applicable regulatory authorities and government departments of noncompliant motors (*i.e.*, serial number, date code, or equivalent);
- (d) re-test and verify the motor efficiency rating after the manufacturer modifies the product.

Sampling Process

The objective of our sampling process is to minimize manufacturers' tests, costs and time to market, while providing sufficient confidence that the series of motors verified meet the applicable energy efficiency standard. The added features of our program such as unannounced follow-up inspections, random motor re-testing and challenge testing are critical components for demonstrating continued compliance to the standard. As a consequence of our CSA Group's continual surveillance, the following sampling process guideline has emerged.

Samples Required for Motor Model Qualification Testing

Test 5 units of each 5 basic motor model type (total of 25 motors). The efficiency of the sample lot must equal or exceed the required nominal full load efficiency rating. The individual sample efficiencies must comply with the nominal efficiency tolerance required by the Standard.

Manufacturer's information indicating efficiency ratings must be in agreement with CSA Group's records.

Selection of Basic Model Types to represent a Series of Motors

A minimum of five (5) basic model types are required to be tested to verify the efficiency ratings of a series of motors. The basic model types are to be selected such that they represent the complete range of motors within the series. This may require that more than 5 basic model types are selected. High volume production motors are to be represented in the basic model types selected.

Samples Required for Scheduled Motor Re-testing

A goal for verifying continued compliance with the standard is to re-test high volume motors at least once every 2 years. Other motors of different frame series are to be retested as needed to ensure continued compliance.

The initial sample lot shall consist of one motor. If the result equals or exceeds the minimum result from the qualification tests, then no further samples are required. If the result is less than

the minimum result from the qualifying tests, then select motor samples per the qualifying test procedure.

Expertise in Motor Test Procedures

CSA Group has been active in the certification for safety of electric motors since before 1940 and has more than 450 certification listings active at this time.

CSA Group has been offering the Energy Efficiency Verification Service for Electric Motors since 1992 with motor size from 1 to 500 hp. The motor efficiency is tested to Standards CSA C390-10, IEEE 112-2004, IEEE 114 and CSA 747-09. CSA has obtained accreditation from DOE in 2002 for motor efficiency US Department of Energy as a nationally recognized certification program in 2002 (Federal Register /Vol 67, No 249 / Friday December 27, 2002 / Notices).

Summary of CSA Group Section 4 Supporting Documentation

Section 4, Attachment 1, contains a copy of an information letter to “All Manufacturers of AC Three Phase Induction Motors Rated 1 hp to 500 hp,” which is entitled “Announcing CSA Standard C390-10 Test methods, marking requirements and energy efficiency levels for three-phase induction motors, 4th edition. “

Section 5 - Examples of Other CSA Group Accreditations

The certification system and technical capabilities of the Association have enabled CSA Group to be accredited nationally and internationally for a wide product spectrum such as electrical safety, energy efficiency, plumbing and gas. See Attachment 1 for examples of accreditations CSA Group has received.

Qualification of CSA Group to operate as a Certification System

The US Department of Energy recognized the Energy Efficiency Verification Service of CSA Group as a Nationally Recognized certification Program in a **Federal Register** Notice dated 27 December 2002 (67 FR 79480).

Summary of CSA Group Section 5 Supporting Documentation

Section 5, Attachment 1, contains copies of the following documents CSA Group has received in recognition of its certification system and technical capabilities:

1. Certificate of Accreditation under the Certification Body Accreditation Program, from the Standard Council of Canada, June 27, 2013;
2. Certificate of Accreditation in recognition of being an Accredited Testing organization, from the International Accreditation Service, November 1, 2012.
3. Certificate of Recognition as a Nationally Recognized Testing Laboratory, from the Occupational Safety and Health Administration, effective through December 31, 2014.

- 4.
- 5.
6. [FR Doc. 2013-31268 Filed 12/27/2013 at 8:45 am; Publication Date: 12/30/2013]